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ABSTRACT

To assess the effect of summer vacation on the overall reading ability of first through fifth graders, as measured by norm-referenced and criterion-referenced reading tests, a study was conducted involving 84 children. In the spring testing, the researcher administered the Gates-MacGinitie Reading Test, Form 1, and the Wisconsin Tests of Reading Skill Development, Form 1, the last two weeks prior to summer vacation. In the fall testing, Form 2 of the same tests was given. A summer activities questionnaire was administered to exclude children who had received reading instruction during the summer. Three hypotheses were formulated: (1) there is no difference between spring and fall mean scores of the Gates-MacGinitie Reading Test; (2) there is no difference between spring and fall variance scores on the Gates-MacGinitie; (3) there is no difference in the spring and fall mean scores measured by the Wisconsin Tests of Reading Skill Development. Hypotheses one and two were accepted, and three was accepted with qualifications. The results suggest that no significant loss in reading ability occurs over the summer vacation; therefore, teachers using objective-based reading programs need not conduct massive retesting or reteaching in the fall. (Tables of findings are included.) (FL)

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"The Effects of the Summer Vacation on Reading Retention"

Samuel A. Perez

INTRODUCTION

What is the effect of the summer vacation on the retention of 33 specific reading skills? Or, more specifically, what are the specific reading skills that are more easily retained and the specific reading skills that are more difficult to retain by children receiving reading instruction in an objective-based reading program?

Rude (1973) found that first graders not only showed a significant loss in overall reading ability as measured by a norm-referenced reading test but showed a significant loss on nine out of twelve specific reading skills measured by criterion-referenced reading tests. The first graders did not retain the specific reading skills of Sight Vocabulary, Beginning Consonants, Ending Consonants, Consonant Blends, Rhyming Elements, Short Vowels, Consonant Digraphs, Compound Words or Contractions. In another study examining the retention of specific reading skills, Rude, Foxglover and Niquette (1975) concluded that kindergarten children tend to retain visual discrimination skills during the summer months while they tend to show a slight loss in auditory discrimination skills.

The present study was designed to assess the effect of the summer vacation on the overall reading ability and specific reading ability of first, second, third, fourth and fifth grade children, as measured by a norm-referenced reading test and criterion-referenced reading tests.

METHOD

Subjects

Subjects in the study were 84 first, second, third, fourth and fifth grade children enrolled in the Wisconsin Design for Reading Skill Development-Word Attack at the Edith Bowen Laboratory School in Logan, Utah.

Instruments

Overall reading ability was measured by the Vocabulary and Comprehension subtests of the Gates-MacGinitie Reading Test, Forms 1 and 2, Primary A, B, C and Survey D

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(Gates-MacGinitie, 1965). The test is a norm-referenced standardized instrument.

Specific reading skills were measured by the Wisconsin Tests of Reading Skill Development-Word Attack, Forms 1 and 2, Levels B, C and D (Otto, Kamm, Miles, VanBlaricom, Harris, and Stewart, 1970). The Wisconsin Tests of Reading Skill Development-Word Attack are criterion-referenced tests that measure phonic and structural analysis skills. The reading skills assessed at Level B were:

1. Beginning Consonant Sounds
2. Ending Consonant Sounds
3. Consonant Blends
4. Rhyming Elements
5. Short Vowels
6. Consonant Digraphs
7. Compound Words
8. Contractions
9. Base Words
10. Plurals
11. Possessives

The reading skills assessed at Level C were:

1. Consonant Variants
2. Consonant Blends
3. Long Vowels
4. Vowel + r, a + l, a + w
5. Diphthongs
6. Long and Short oo
7. Middle Vowel
8. Two Vowels Separated
9. Two Vowels Together

10. Final Vowel
11. Consonant Digraphs
12. Base words
13. Plurals
14. Homonyms
15. Synonyms, Antonyms
16. Multiple Meanings

The reading skills assessed at Level D were:

1. Consonant Blends
2. Silent Letters
3. Syllabication
4. Accent
5. Unaccented Schwa
6. Possessives

Procedure

The spring testing program called for the researcher to administer the Gates-MacGinitie Reading Test, Form 1 and the Wisconsin Tests of Reading Skill Development-Word Attack, Form 1 the last two weeks prior to school being dismissed for the summer vacation. The following levels of the Gates-MacGinitie Reading Test were administered. Primary A was administered to first grade children, Primary B to second grade children, Primary C to third grade children and Survey D to fourth and fifth grade children. Levels B, C and D of the Wisconsin Tests of Reading Skills Development were administered. The subjects were administered the level or levels for which they received reading instruction during the year. The fall testing program was different from the spring testing program in that Form 2 of the Gates-MacGinitie Reading Test was administered, Form 2 of the Wisconsin Tests of Reading Skill Development was administered, and a Summer Activities Questionnaire was administered to identify, for the purpose of excluding from the study, children who received reading instruction during the summer vacation.

An analysis of variance test was used to determine the degree of retention. The following null hypotheses for first, second, third, fourth and fifth grade children were tested in the study:

1. There is no difference between spring and fall mean scores on the Gates-MacGinitie Reading Test.

2. There is no difference between spring and fall variance scores on the Gates-MacGinitie Reading Test.

3. For each of the 33 specified reading skills measured by the Wisconsin Tests of Reading Skill Development, there is no difference in spring and fall mean scores.

RESULTS

Hypothesis 1: There is no difference between spring and fall mean scores on the Gates-MacGinitie Reading Test.

Examination of the data indicated that no statistically significant gains or losses were reached at any grade level on the Vocabulary or Comprehension subtests of the Gates-MacGinitie Reading Test (See Appendix). The null hypothesis is accepted.

Hypothesis 2: There is no difference between spring and fall variance scores on the Gates-MacGinitie Reading Test.

There was no statistically significant differences between spring and fall variance scores at any grade level on the Vocabulary or Comprehension subtests of the Gates-MacGinitie Reading Test (See Appendix). The null hypothesis is accepted.

Hypothesis 3: For each of the 33 Specific reading skills measured by the Wisconsin Tests of Reading Skill Development, there is no differences in spring and fall mean scores.

Hypothesis 3 was also accepted, but with two qualifications. Statistically significant gains were found on two of the 33 criterion-referenced tests measuring specific reading ability. The statistically significant gains were recorded on the tests measuring Short Vowels and Middle Vowels. (See Appendix).

Conclusions and Implications

Several conclusions seem warranted on the basis of the results of this study. The first conclusion is that no significant loss in overall reading ability or spe-

cific reading ability occurs as a result of the summer recess from school. Second, since there was no significant loss in any of the specific reading skills, teachers using objective-based reading programs need not conduct massive schoolwide retesting of these skills before beginning reading instruction in the fall. Instead, retesting of children might be done on the basis of teachers' subjective judgement, which will reduce considerably the cost and time required to use objective-based reading programs.

A third conclusion is revealed when one examines the percentage of subjects who were classified as "masters" (achieving a score of 80% correct or higher on a specific skill test) in the spring compared to the percentage of subjects classified as "masters" on the spring and fall tests. 71% of all subjects in the spring achieved mastery and 72% achieved mastery in the fall. A comparison of the spring and fall mean test scores indicated a change from the mastery level to the nonmastery level only on the test measuring the reading skill of Vowel + r, a + l, a + w. In addition, findings indicated the mean test scores on several reading skills were below the mastery level both in the spring and fall. The implication of this study concerning the "mastery" concept suggests that classroom teachers do not need to spend additional time and effort reinforcing, reteaching or reviewing all of the reading skills identified in most objective-based reading programs. Since the results of this study indicated a change from the "mastery" level to the "nonmastery" level on one reading skill and both the spring and fall mean test scores on several reading skills were below the "mastery" level, these reading skills require special attention. The specific reading skills of Vowel + r, a + l, a + w, Contractions, Consonant Variants, Final Vowels, Accent, and Unaccented Schwa are skills which classroom teachers should reinforce more during the regular school year, in addition to reteaching or reviewing in the fall after the summer vacation.

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Spring and Fall Means and Variances for Gates-MacGinitie Reading Test

Variable	Mean	Variance
Gates-MacGinitie, Primary A, Vocabulary--Spring	37.81	74.77
Gates-MacGinitie, Primary A, Vocabulary--Fall	38.68	86.46
Gates-MacGinitie, Primary A, Comprehension--Spring	23.43	30.62
Gates-MacGinitie, Primary A, Comprehension--Fall	24.75	55.81
Gates-MacGinitie, Primary B, Vocabulary--Spring	36.50	89.06
Gates-MacGinitie, Primary B, Vocabulary--Fall	38.68	92.62
Gates-MacGinitie, Primary B, Comprehension--Spring	23.63	57.41
Gates-MacGinitie, Primary B, Comprehension--Fall	24.86	64.34
Gates-MacGinitie, Primary C, Vocabulary--Spring	40.33	76.08
Gates-MacGinitie, Primary C, Vocabulary--Fall	40.46	61.71
Gates-MacGinitie, Primary C, Comprehension--Spring	35.86	69.44
Gates-MacGinitie, Primary C, Comprehension--Fall	34.06	123.79
Gates-MacGinitie, Survey D (4th Grade), Vocabulary--Spring	32.23	61.13
Gates-MacGinitie, Survey D (4th Grade), Vocabulary--Fall	33.95	52.61
Gates-MacGinitie, Survey D (4th Grade), Comprehension--Spring	32.80	103.10
Gates-MacGinitie, Survey D (4th Grade), Comprehension--Fall	36.61	154.42
Gates-MacGinitie, Survey D (5th Grade), Vocabulary--Spring	37.60	60.27
Gates-MacGinitie, Survey D (5th Grade), Vocabulary--Fall	39.00	10.11
Gates-MacGinitie, Survey D (5th Grade), Comprehension--Spring	40.00	71.33
Gates-MacGinitie, Survey D (5th Grade), Comprehension--Fall	42.80	74.62

Analysis of Variance of Gates-MacGinitie Reading Test

Variable	Degrees of Freedom	Mean Squares	F Ratio
Gates-MacGinitie, Primary A, Vocabulary, Spring-Fall	1	6.13	.071
Error	30	85.99	
Gates-MacGinitie, Primary A, Comprehension, Spring-Fall	1	13.78	.29
Error	30	46.09	
Gates-MacGinitie, Primary B, Vocabulary, Spring-Fall	1	52.36	.55
Error	42	95.14	
Gates-MacGinitie, Primary B, Comprehension, Spring-Fall	1	16.56	.30
Error	42	54.94	
Gates-MacGinitie, Primary C, Vocabulary, Spring-Fall	1	.13	.0018
Error	28	73.82	
Gates-MacGinitie, Primary C, Comprehension, Spring-Fall	1	24.30	.23
Error	28	103.52	
Gates-MacGinitie, Survey D (4th Grade), Vocabulary, Spring-Fall	1	30.85	.51
Error	40	59.71	
Gates-MacGinitie, Survey D (4th Grade), Comp., Spring-Fall	1	152.38	1.12
Error	40	135.20	
Gates-MacGinitie, Survey D (5th Grade), Vocabulary, Spring-Fall	1	9.80	.24
Error	18	39.68	
Gates-MacGinitie, Survey D (5th Grade), Comp., Spring-Fall	1	39.20	.53
Error	18	72.97	

Summary of Difference in Spring and Fall Variances for Gates-MacGinitie Reading Test

Variable	Degrees of Freedom	Mean Squares	F Ratio
Gates-MacGinitie, Primary A, Vocabulary, Fall	15	86.46	1.15
Gates-MacGinitie, Primary A, Vocabulary, Spring	15	74.77	
Gates-MacGinitie, Primary A, Comprehension, Fall	15	55.81	1.82
Gates-MacGinitie, Primary A, Comprehension, Spring	15	30.62	
Gates-MacGinitie, Primary B, Vocabulary, Fall	21	92.58	1.03
Gates-MacGinitie, Primary B, Vocabulary, Spring	21	89.06	
Gates-MacGinitie, Primary B, Comprehension, Fall	21	64.34	1.12
Gates-MacGinitie, Primary B, Comprehension, Spring	21	57.41	
Gates-MacGinitie, Primary C, Vocabulary, Fall	14	61.71	1.23
Gates-MacGinitie, Primary C, Vocabulary, Spring	14	76.08	
Gates-MacGinitie, Primary C, Comprehension, Fall	14	123.79	1.78
Gates-MacGinitie, Primary C, Comprehension, Spring	14	69.44	
Gates-MacGinitie, Survey D (4th Grade), Vocabulary, Fall	20	52.61	1.16
Gates-MacGinitie, Survey D (4th Grade), Vocabulary, Spring	20	61.13	
Gates-MacGinitie, Survey D (4th Grade), Comprehension, Fall	20	154.42	1.49
Gates-MacGinitie, Survey D (4th Grade), Comprehension, Spring	20	103.10	
Gates-MacGinitie, Survey D (5th Grade), Vocabulary, Fall	9	19.11	3.15
Gates-MacGinitie, Survey D (5th Grade), Vocabulary, Spring	9	60.27	
Gates-MacGinitie, Survey D (5th Grade), Comprehension, Fall	9	74.62	1.04
Gates-MacGinitie, Survey D (5th Grade), Comprehension, Spring	9	71.33	

Analysis of Variance of Wisconsin Tests of Reading Skill Development

Variable	Degrees of Freedom	Mean Squares	F Ratio
Level B			
Beginning Consonant Sounds, Spring-Fall	1	34.02	.58
Error	34	58.04	
Ending Consonant Sounds, Spring-Fall	1	.5681	.0025
Error	42	225.46	
Consonant Blends, Spring-Fall	1	469.44	1.65
Error	34	282.92	
Rhyming Elements, Spring-Fall	1	225.78	.46
Error	30	488.69	
Short Vowels, Spring-Fall	1	504.69	4.47*
Error	50	112.86	
Consonant Digraphs, Spring-Fall	1	393.36	1.61
Error	34	244.30	
Compound Words, Spring-Fall	1	14.69	.28
Error	34	51.02	
Contractions, Spring-Fall	1	128.00	.46
Error	48	277.15	
Base Words, Spring-Fall	1	105.88	.55
Error	32	190.93	
Plurals, Spring-Fall	1	.0625	.0022
Error	14	28.20	
Possessives, Spring-Fall	1	20.00	.55
Error	18	36.11	
Level C			
Consonant Variants, Spring-Fall	1	25.78	.10
Error	54	252.31	
Consonant Blends, Spring-Fall	1	44.73	.20
Error	32	223.18	
Long Vowels, Spring-Fall	1	188.12	1.23
Error	60	152.03	
Vowel + r, a + l, a + w, Spring-Fall	1	172.52	.88
Error	46	195.25	

Variable	Degrees of Freedom	Mean Squares	F Ratio
Diphthongs, Spring-Fall	1	38.34	.19
Error	44	194.57	
Long and Short oo, Spring-Fall	1	28.59	.088
Error	72	322.16	
Middle Vowels, Spring-Fall	1	1225.00	5.42*
Error	62	225.82	
Two Vowels Separated, Spring-Fall	1	480.50	2.85
Error	70	168.30	
Two Vowels Together, Spring-Fall	1	84.50	.65
Error	70	128.76	
Final Vowel, Spring-Fall	1	177.01	.52
Error	78	336.58	
Consonant Digraphs, Spring-Fall	1	96.57	.54
Error	26	176.65	
Base Words, Spring-Fall	1	88.61	2.76
Error	24	32.07	
Plurals, Spring-Fall	1	52.65	1.09
Error	24	48.26	
Homonyms, Spring-Fall	1	22.00	1.64
Error	20	13.39	
Synonyms, Antonyms, Spring-Fall	1	122.28	.73
Error	44	167.29	
Multiple Meanings, Spring-Fall	1	4.08	.012
Error	10	331.88	
Level D			
Consonant Blends, Spring-Fall	1	176.04	3.93
Error	22	44.75	
Silent Letters, Spring-Fall	1	6.48	.022
Error	48	294.00	
Syllabication, Spring-Fall	1	245.68	1.21
Error	70	202.35	
Accent, Spring-Fall	1	384.09	.84
Error	42	453.30	
Unaccented Schwa, Spring-Fall	1	18.89	.088
Error	26	212.47	
Possessives, Spring-Fall	1	1452.00	3.61
Error	46	401.76	

*Significant at or beyond .05 level of confidence.

Spring and Fall Mean Test Scores and Change Scores of

Wisconsin Tests of Reading Skill Development

Variable	Mean
Level B	
Beginning Consonant Sounds--Spring	94.16
Beginning Consonant Sounds--Fall	92.22
Beginning Consonant Sounds--Change	-1.94
Ending Consonant Sounds--Spring	82.72
Ending Consonant Sounds--Fall	82.95
Ending Consonant Sounds--Change	+ .23
Consonant Blends--Spring	85.83
Consonant Blends--Fall	93.05
Consonant Blends--Change	+7.22
Rhyming Elements--Spring	83.43
Rhyming Elements--Fall	88.75
Rhyming Elements--Change	+5.32
Short Vowels--Spring	74.84
Short Vowels--Fall	81.07
Short Vowels--Change	+6.23
Consonant Digraphs--Spring	88.11
Consonant Digraphs--Fall	81.50
Consonant Digraphs--Change	-6.61
Compound Words--Spring	94.33
Compound Words--Fall	93.05
Compound Words--Change	-1.28
Contractions--Spring	79.24
Contractions--Fall	76.04
Contractions--Change	-3.20
Base Words--Spring	89.70
Base Words--Fall	86.17
Base Words--Change	-3.53
Plurals--Spring	97.00
Plurals--Fall	96.87
Plurals--Change	- .13
Possessives--Spring	96.00
Possessives--Fall	98.00
Possessives--Change	+2.00

Continued

Variable	Mean
Level C	
Consonant Variants--Spring	73.17
Consonant Variants--Fall	74.53
Consonant Variants--Change	+1.36
Consonant Blends--Spring	94.94
Consonant Blends--Fall	97.23
Consonant Blends--Change	+2.29
Long Vowels--Spring	82.61
Long Vowels--Fall	86.09
Long Vowels--Change	+3.48
Vowel + r, a + l, a + w--Spring	93.20
Vowel + r, a + l, a + w--Fall	79.41
Vowel + r, a + l, a + w--Change	-13.79
Diphthongs--Spring	87.39
Diphthongs--Fall	89.21
Diphthongs--Change	+1.82
Long and Short oo--Spring	82.10
Long and Short oo--Fall	80.86
Long and Short oo--Change	-1.24
Middle Vowel--Spring	82.87
Middle Vowel--Fall	91.62
Middle Vowel--Change	+8.75
Two Vowels Separated--Spring	83.41
Two Vowels Separated--Fall	88.58
Two Vowels Separated--Change	+5.17
Two Vowels Together--Spring	85.94
Two Vowels Together--Fall	88.11
Two Vowels Together--Change	+2.17
Final Vowel--Spring	69.45
Final Vowel--Fall	66.47
Final Vowel--Change	-2.98
Consonant Digraphs--Spring	95.14
Consonant Digraphs--Fall	91.42
Consonant Digraphs--Change	-3.72
Base Words--Spring	98.38
Base Words--Fall	94.69
Base Words--Change	-3.69

Continued

Variable	Mean
Plurals--Spring	97.69
Plurals--Fall	94.84
Plurals--Change	-2.85
Homonyms--Spring	96.90
Homonyms--Fall	98.90
Homonyms--Change	+2.00
Synonyms, Antonyms--Spring	86.82
Synonyms, Antonyms--Fall	90.08
Synonyms, Antonyms--Change	+3.26
Multiple Meanings--Spring	90.00
Multiple Meanings--Fall	91.16
Multiple Meanings--Change	+1.16
Level D	
Consonant Blends--Spring	80.48
Consonant Blends--Fall	81.20
Consonant Blends--Change	+ .72
Silent Letters--Spring	95.58
Silent Letters--Fall	90.16
Silent Letters--Change	-5.42
Syllabication--Spring	87.13
Syllabication--Fall	83.44
Syllabication--Change	-3.69
Accent--Spring	65.22
Accent--Fall	59.31
Accent--Change	-5.91
Unaccented Schwa--Spring	77.07
Unaccented Schwa--Fall	75.42
Unaccented Schwa--Change	-1.65
Possessives--Spring	74.75
Possessives--Fall	85.75
Possessives--Change	+11.00